



#4  
PATENT  
0505-4008

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Christopher KEITH

Filed: March 8, 2001

Art Unit: 2165

Examiner:

Serial No.: 09/803,615

Confirmation No.: 7375

Title: AUTOMATED SYNCHRONIZATION OF ORDERS  
REPRESENTED IN MULTIPLE MARKETS

**PETITION TO ACCORD FILING DATE  
AND REFUND LATE FILING FEE SURCHARGE**

RECEIVED

JUL 06 2001

Assistant Commissioner for Patents  
Washington, DC 20231

OFFICE OF PETITIONS  
DEPUTY A/C PATENTS

Dear Sir:

Applicant petitions to have a filing date of March 8, 2001, accorded for the enclosed pages 1-2 of the above-referenced application, and for the enclosed Declaration.

Applicant further petitions for refund of the instant petition fee.

Applicant additionally petitions for refund of the late filing fee associated with the Response to Notice to File Missing Parts for the Declaration.

History of Events and Attorney Declaration

On March 8, 2001, the undersigned attorney filed fifteen (15) patent applications having the same "Background" and "Detailed Description" sections, but different "Summary of the Invention" and "Claims" sections. Each of the "Summary" sections paraphrases the independent claims of the respective "Claims" section.

The undersigned attorney swears and declares that she personally verified that all 124 pages of the specification in the instant application, as well as a signed Declaration for the instant application, were present in the Express Mail envelope that she personally sealed and carried to the Post Office on March 8, 2001.

In due course, the undersigned attorney received the stamped return receipt postcard for the above-referenced application, indicating that the specification as well as the signed Declaration were received on March 8, 2001.

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**UNITED STATES PATENT & TRADEMARK OFFICE**  
Washington, D.C. 20231

REQUEST FOR PATENT FEE REFUND										
1 Date of Request: <u>9/13/01</u>		2 Serial/Patent # <u>09/803,615</u>								
3 Please refund the following fee(s):		4 PAPER NUMBER	5 DATE FILED	6 AMOUNT						
	Filing			\$						
	Amendment			\$						
	Extension of Time			\$						
	Notice of Appeal/Appeal			\$						
<input checked="" type="checkbox"/>	Petition	4	7/5/01	\$ 130						
	Issue			\$						
	Cert of Correction/Terminal Disc.			\$						
	Maintenance			\$						
	Assignment			\$						
<input checked="" type="checkbox"/>	Other surcharge for oath/dec.	4	7/5/01	\$ 65						
7 TOTAL AMOUNT OF REFUND			\$ 195							
10 REASON:		8 TO BE REFUNDED BY:								
	Overpayment	<input checked="" type="checkbox"/> Treasury Check								
	Duplicate Payment	Credit Deposit A/C #:								
<input checked="" type="checkbox"/>	No Fee Due (Explanation):	9 <table border="1" style="display: inline-table; border-collapse: collapse;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>								
<div style="font-size: 1.2em; font-family: cursive;"> OTO error C.C. </div>										
11 REFUND REQUESTED BY:										
TYPED/PRINTED NAME: <u>PROTAVG</u>		TITLE: <u>Petition Atty</u>								
SIGNATURE: <u>[Signature]</u>		PHONE: <u>703-308-076</u>								
OFFICE: <u>Petition</u>										
***** THIS SPACE RESERVED FOR FINANCE USE ONLY: *****										
APPROVED: <u>Alicia Kelley</u>		DATE: <u>9-14-01</u>								

Instructions for completion of this form appear on the back. After completion, attach white and yellow copies to the official file and mail or hand-carry to:

**Office of Finance  
Refund Branch  
Crystal Park One, Room 802B**



PATENT  
0505-4008

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9

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Christopher KEITH

Filed: March 8, 2001

Art Unit: 2165

Examiner:

Serial No.: 09/803,615

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Title: AUTOMATED SYNCHRONIZATION OF ORDERS  
REPRESENTED IN MULTIPLE MARKETS

RECEIVED

JUL 06 2001

OFFICE OF PETITIONS  
DEPUTY A/C PATENTS

CERTIFICATE OF MAILING

I hereby certify that the following attached paper(s) and/or fee

1. Petition to Accord Filing Date and Refund Late Filing Fee Surcharge
2. Exhibit A -- Notice to File Missing Parts
3. Exhibit B -- Copy of stamped return receipt postcard
4. Exhibit C -- Copy of first page of appl. ser. no. 09/801,848
5. Exhibit D -- Response to Notice to File Missing Parts (ORIGINAL)
6. Exhibit E -- Copies of missing Declaration and pages 1-2 of specification
7. Credit card authorization for \$65 (Response to Notice to File Missing Parts)
8. Credit card authorization for \$130 (Petition to Accord Filing Date)
9. Return receipt postcard

are being deposited with the United States Postal Service with sufficient postage as first class mail under 37 C.F.R. § 1.8 on the date indicated below in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231.

Date: June 14, 2001

Brenda Pomerance  
Brenda Pomerance

CORRESPONDENCE ADDRESS:

Brenda Pomerance  
260 West 52 St. Apt. 27B  
New York, NY 10019  
212 245-3940

Today, the undersigned attorney received a Notice to File Missing Parts, dated June 11, 2001, indicating that pages 1-2 of the specification and the Declaration were not received.

Instant Response to Notice to File Missing Parts

Applicant believes that the Patent Office lost the Declaration and pages 1-2 of the instant application. Applicant submits copies of the lost Declaration and pages 1-2 herewith.

Applicant petitions the Patent Office to accord a filing date of March 8, 2001 to the Declaration and pages 1-2 of the specification. Applicant also petitions for refund of the filing fees paid herewith in the amounts of \$130 for the instant Petition and \$65 for the late filing fee surcharge associated with the Response to File Missing Parts.

Attached as Exhibit A is the copy of the Notice to File Missing Parts that must be returned with applicant's Response.

Attached as Exhibit B is a copy of the stamped return receipt postcard, annotated with arrows to items (1) and (3), as evidence that pages 1-2 of the specification and the signed Declaration were filed with the application.

Attached as Exhibit C is a copy of the first page of one of the other fourteen patent applications, docket 0505-4002, serial no. 09/801,848, filed on the same day as the instant application. Page 1 of the '848 application contains identical disclosure as page 1 of the instant application; these pages differ only in the docket numbers in their headers. Exhibit C is submitted as evidence that the page 1 of the instant application existed as of the filing date. The Patent Office is invited to examine page 1 of the other 13 related applications filed on March 8, 2001, to verify that they all have the same first page. If the Patent Office wishes to do this, the undersigned attorney will gladly supply the serial numbers for the 13 related applications.

Page 2 of the instant application paraphrases the independent claims of the instant application. The Patent Office agrees that the claims were filed on March 8, 2001.

Exhibit C, the instant claims and the above Attorney Declaration demonstrate that no matter on pages 1-2 of the instant application was created subsequent to March 8, 2001.

Attached as Exhibit D is applicant's original Response to the Notice to File Missing Parts.

Attached as Exhibit E are copies of the lost pages, namely, the signed Declaration and pages 1-2 of the specification.

Actions Requested

Applicant petitions the Patent Office to accord a filing date of March 8, 2001 for the copies of the Declaration and pages 1-2 of the specification in Exhibit E.

Applicant also petitions for refund of the filing fees paid herewith in the amounts of \$130 for the instant Petition and \$65 for the late filing fee surcharge associated with the Response to File Missing Parts.

The Patent Office is invited to contact the undersigned attorney if there are any questions or further information is desired.

Respectfully submitted,

Date: June 14, 2001

Brenda Pomerance

Brenda Pomerance  
Reg. No. 36,894

Address:  
260 West 52 St. Apt. 27B  
New York, NY 10019  
voice/fax 212 245-3940

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Christopher KEITH

Filed: March 8, 2001

Art Unit: 2165

Examiner:

Serial No.: 09/803,615

Confirmation No.: 7375

Title: AUTOMATED SYNCHRONIZATION OF ORDERS  
REPRESENTED IN MULTIPLE MARKETS

**RESPONSE TO NOTICE TO FILE MISSING PARTS**

Assistant Commissioner for Patents  
Office of Initial Patent Examination  
Customer Service Center  
Washington, DC 20231

Dear Sir:

Enclosed is a copy of a Notice to File Missing Parts in the above-referenced application, indicating that the Declaration is missing and a late filing fee surcharge of \$65 is due.

A signed Declaration was submitted with the application when filed. A copy of the original Declaration is attached. Applicant requests that the copy of the original Declaration be accepted.

A Credit Card Authorization Form for the amount of the late filing fee surcharge, \$65, is also enclosed.

Withdrawal of the late filing fee surcharge is also requested, since the Declaration was timely filed with the application.

Please call the undersigned attorney if there are any questions.

Respectfully submitted,

Date: June 14, 2001

Brenda Pomerance

Brenda Pomerance  
Reg. No. 36,894

Address:  
260 West 52 St. Apt. 27B  
New York, NY 10019  
voice/fax 212 245-3940



PATENT  
0505-4008

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I hereby declare that:

I believe I am an original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled **AUTOMATED SYNCHRONIZATION OF ORDERS REPRESENTED IN MULTIPLE MARKETS**, the specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification. I acknowledge the duty to disclose all information known to me that is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

NONE

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

NONE

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I hereby appoint the following attorney with full power of substitution and revocation, to prosecute said application, to make alterations and amendments therein, to receive the patent, and to transact all business in the Patent and Trademark Office connected therewith:

Brenda Pomerance

Reg. No. 36,894

Please address all correspondence and calls to **Brenda Pomerance, 260 West 52 St. Apt. 27B, New York, New York 10019, (212) 245-3940.**

Inventor's signature

Date

3-5-01

Full name of 1st inventor: Christopher Keith

Residence: 105 Hudson Street Apt. 5S, New York, NY 10013

Citizenship: U.S.

Post Office Address: same as residence



**AUTOMATED SYNCHRONIZATION OF ORDERS  
REPRESENTED IN MULTIPLE MARKETS**

The present application is a continuation-in-part of U.S. application serial number 09/546,031, filed April 10, 2000, which is hereby incorporated by reference.

**BACKGROUND OF THE INVENTION**

The present invention relates to trading systems such as for financial instruments and other goods and services, and more particularly, is directed to a system that forms a platform for processes that can be flexibly configured to interact with each other.

Conventional financial instrument trading systems assume a particular set of rules and protocols must be used during trading. However, the financial industry is a hotbed of rapidly changing ideas and trends; because the development time and expense associated with a conventional trading system cannot change accordingly, financial innovation is stifled.

Due to the rapid proliferation of methodologies and competitors, practitioners are experiencing increasing difficulty in finding best markets, as required by their fiduciary obligations.

Meanwhile, the stress of person-to-person trading is increasing as the volume of information that must be assimilated by an individual trader increases. Despite the ever faster pace of financial markets, there is a desire to give each party's order the sort of personalized service that becomes increasingly difficult with the increasing market pace.

On the other hand, the rate at which the structure of financial markets changes is slow, in part due to the huge technology costs. The costs include building new systems and connecting practitioners to the new systems.

Finally, personal relationships remain key in large trades, that is, computer-based trading technology has not been adopted by large block traders, who still rely on the telephone. This fact has not been accommodated in conventional trading systems, which generally require practitioners to change their practices to what can be readily automated from a system implementer's viewpoint; private interpersonal agreements and arrangements have been considered unsuitable for automation in conventional trading systems.

Accordingly, there is a need for a fresh methodology for developing financial instrument trading systems.

SUMMARY OF THE INVENTION

In accordance with an aspect of this invention, there is provided a method of operating an internal market. An order is automatically represented in the internal market and an external market. It is automatically ensured that the order is executable in at most one of the internal market and the external market.

In accordance with another aspect of this invention, there is provided a method of synchronizing an internal market and an external market. An action is automatically received from one of the internal and external markets. The action is automatically transmitted to the other of the internal and external markets. When a response has not been received within a predetermined time, a zero action is automatically sent to the one of the internal and external markets.

In a further aspect, a response is received after the predetermined time and a negative acknowledgement is sent to the other of the internal and external markets.

In accordance with an aspect of this invention, there is provided a method of operating a market. Performance of an action received from another market is automatically attempted. The action is automatically committed after ensuring availability of resources for the action.

In accordance with an aspect of this invention, there is provided a method of operating an internal market. Performance of an action received from a local trading process is automatically attempted. The action is automatically committed after ensuring that the action is reflected in an external market.

In a further aspect, the internal and external markets follow a two phase protocol for committing actions.

In accordance with an aspect of this invention, there is provided a method of synchronizing two markets. An order file is transmitted from one of the markets that has been dominant to the other of the markets that has been slaved. The order file is updated to reflect activity that occurred while the order file was being transmitted from the formerly dominant market to the formerly slaved market.

It is not intended that the invention be summarized here in its entirety. Rather, further features, aspects and advantages of the invention are set forth in or are apparent from the following description and drawings.

1 PLATFORM FOR MARKET PROGRAMS AND TRADING PROGRAMS

2 The present application is a continuation-in-part of U.S. application serial number  
3 09/546,031, filed April 10, 2000, which is hereby incorporated by reference.

4 BACKGROUND OF THE INVENTION

5 The present invention relates to trading systems such as for financial instruments and  
6 other goods and services, and more particularly, is directed to a system that forms a platform for  
7 processes that can be flexibly configured to interact with each other.

8 Conventional financial instrument trading systems assume a particular set of rules and  
9 protocols must be used during trading. However, the financial industry is a hotbed of rapidly  
10 changing ideas and trends; because the development time and expense associated with a  
11 conventional trading system cannot change accordingly, financial innovation is stifled.

12 Due to the rapid proliferation of methodologies and competitors, practitioners are  
13 experiencing increasing difficulty in finding best markets, as required by their fiduciary  
14 obligations.

15 Meanwhile, the stress of person-to-person trading is increasing as the volume of  
16 information that must be assimilated by an individual trader increases. Despite the ever faster  
17 pace of financial markets, there is a desire to give each party's order the sort of personalized  
18 service that becomes increasingly difficult with the increasing market pace.

19 On the other hand, the rate at which the structure of financial markets changes is slow, in  
20 part due to the huge technology costs. The costs include building new systems and connecting  
21 practitioners to the new systems.

22 Finally, personal relationships remain key in large trades, that is, computer-based trading  
23 technology has not been adopted by large block traders, who still rely on the telephone. This fact  
24 has not been accommodated in conventional trading systems, which generally require  
25 practitioners to change their practices to what can be readily automated from a system  
26 implementer's viewpoint; private interpersonal agreements and arrangements have been  
27 considered unsuitable for automation in conventional trading systems.

28 Accordingly, there is a need for a fresh methodology for developing financial instrument  
29 trading systems.

30 Same disclosure as first page  
of 0505-4008 = US pat app 09/803, 615

# EXHIBIT B

Serial No. \_\_\_\_\_ Docket No. 0505 4008

Date Mailed Mar 8/01 Date Due \_\_\_\_\_

The return of this postcard, properly stamped, acknowledges receipt in the Patent & Trademark Office of the following:

- 1. Application including 124 pg. specification, 1 pg. Abstract, 3 pg. claims 1-27
- 2. 91 sheets formal drawings
3. Declaration, signed
4. Assignment, signed
5. Assignment Recordation Cover Sheet
6. Application Fee Transmittal
7. Credit card authorization form for \$ 498 (filing)
8. Credit card authorization form for \$40 (asst. rec.)
9. Request for Non-publication under 35 USC 122(b)
10. Certificate of Mailing by Express Mail

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31002 U.S. PTO  
09/803615  
03/08/01

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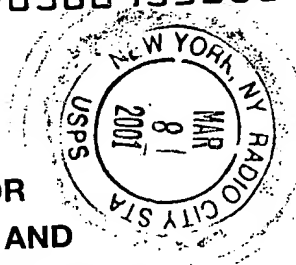
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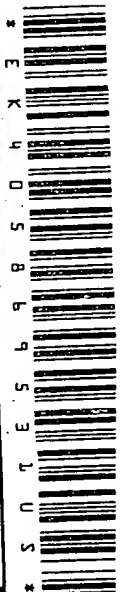
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# UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/803,615	03/08/2001	Christopher Keith	0505-4008

CONFIRMATION NO. 7375

## FORMALITIES LETTER



\*OC000000006166341\*

Brenda Pomerance  
260 West 52 Street, Apartment 27B  
New York, NY 10019

Date Mailed: 06/11/2001

## NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

### *Filing Date Granted*

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is missing.  
*A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.*
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(e) of \$65 for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this letter.
- **The balance due by applicant is \$ 65.**

The following item(s) appear to have been **omitted** from the application:

- Page(s) 1,2 of the specification (description and claims).

I. Should applicant contend that the above-noted omitted item(s) was in fact deposited in the U.S. Patent and Trademark Office (USPTO) with the nonprovisional application papers, a copy of this Notice and a petition (and \$130.00 petition fee (37 CFR 1.17(h))) with evidence of such deposit **must** be filed within **TWO MONTHS** of the date of this Notice. The petition fee will be refunded if it is determined that the item(s) was received by the USPTO.

II. Should applicant desire to supply the omitted item(s) and accept the date that such omitted item(s) was filed in the USPTO as the filing date of the above-identified application, a copy of this Notice, the omitted item(s) (with a supplemental oath or declaration in compliance with 37 CFR 1.63 and 1.64 referring to such items), and a petition under 37 CFR 1.182 (with the \$130.00 petition fee (37 CFR 1.17(h))) requesting the later filing date **must** be filed within **TWO MONTHS** of the date of this Notice.

III. The failure to file a petition (and petition fee) under the above options (I) or (II) within **TWO MONTHS** of the date of this Notice (37 CFR 1.181(f)) will be treated as a constructive acceptance by the applicant of the

application as deposited in the USPTO. **THIS TWO MONTH PERIOD IS NOT EXTENDABLE UNDER 37 CFR 1.136(a) or (b).** In the absence of a timely filed petition in reply to this Notice, the application will maintain a filing date as of the date of deposit of the application papers in the USPTO, and original application papers (i.e., the original disclosure of the invention) will include only those application papers present in the USPTO on the date of deposit.

In the event that applicant elects not to take action pursuant to options (I) or (II) above (thereby constructively electing option (III)), amendment of the specification to renumber the pages consecutively and cancel incomplete sentences caused by any omitted page(s), and/or amendment of the specification to cancel all references to any omitted drawing(s), relabel the drawing figures to be numbered consecutively (if necessary), and correct the references in the specification to the drawing figures to correspond with any relabelled drawing figures, is required. Any drawing changes should be accompanied by a copy of the drawing figures showing the proposed changes in red ink. Such amendment and/or correction to the drawing figures, if necessary, should be by way of preliminary amendment submitted prior to the first Office action to avoid delays in the prosecution of the application.

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*A copy of this notice MUST be returned with the reply.*

  
Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE